

a first diffraction grating which is formed on a curved surface with a material of a predetermined dispersion; and

a second diffraction grating which is formed on a curved surface with a material of a dispersion different from that of the first diffraction grating and adjacent to the first diffraction grating,

wherein the pitches of corresponding grating portions of the first and second diffraction gratings are equal over the range of use.

8. (Amended) A diffraction optical element according to Claim 7, wherein substrates on which said diffraction gratings are formed are joined together in the non-grating area of each of said diffraction gratings.

9. (Amended) A diffraction optical element according to Claim 7, wherein at least one of said laminated diffraction gratings has at least one diffraction grating differing from it in the direction of the grating shape of the grating portion.

10. (Amended) A diffraction optical element according to Claim 7, wherein the wavelength area used is a visible range.

11. (Amended) A diffraction optical element according to Claim 7, wherein at least one of said plurality of diffraction gratings is such that the material forming said diffraction gratings is the same as the material forming a substrate on which said diffraction gratings are provided.

12. A diffraction optical element according to Claim 11, wherein said substrate has lens action.

13. (Amended) A diffraction optical element according to Claim 7, which is formed on the cemented surface of a cemented lens.

14. (Amended) A diffraction optical element according to Claim 7, wherein said plurality of diffraction gratings are laminated so that the diffraction efficiency of a particular order may heighten in the entire wavelength area used.

15. (Amended) An optical system using a diffraction optical element according to Claim 7.

16. An optical system according to Claim 15, which is an imaging optical system.

17. An optical system according to Claim 15, which is an observation optical system.

REMARKS

Prior to examination on the merits, Applicant requests that the Examiner enter and consider the above amendments.

Claims 1-17 remain pending in this application, with Claims 1-7 being independent. By this Amendment, Applicant has amended Claims 7-11 and 13-15.